Standards



News on the DOE Technical Standards Program



Attention Technical Standards Managers: Program Activities Requiring Your Support!

Committee Developments

DOE-TSL-1

The Department of Energy (DOE) Standards Index (DOE-TSL-1) has served to identify technical standards (both Government and non-Government) and standard-

ization documents used by DOE and its contractors. Each year, the Technical Standards Program Office (TSPO) uses the DOE "Explorer" system to identify new/revised DOE directives that identify (a) non-Government standards adopted for use by reference in the directive(s), and (b) documents prepared by other Federal agencies that DOE and its contractors use as technical standards (in both instances, the review focuses on non-Government standards and Federal documents not previously identified and recorded by the TSPO). However, other valuable source documents con-

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tain similar references to voluntary (non-Government) standards and Federal documents that should be reviewed as part of the DOE-TSL-1 update process. Examples of these documents include sets of "Necessary and Sufficient" or "Work-Smart" standards; site/facility safety analysis reports, Standards/Requirements Identification Documents (S/RIDs) and implementation plans; and appendices to managing and operating (M&O) con-

> tracts with listings of mandatory standards. Many of these documents are accessible through Web sites other than Explorer.

> Operations Office and contractor technical standards managers (TSMs) are requested to: (a) identify site/facility documents of the type discussed above, obtain copies and send them to the TSPO, c/o Oak Ridge National Laboratory (ORNL), P.O. Box 2009, Oak Ridge, Tennessee 37831-8065 or (b) identify the Web site (URL)

> > (Continued on Page 3)



Technical Standards Program Topical



The Department of Energy (DOE) Office of Nuclear and Facility Safety Policy, EH-53, has identified several technical areas related to natural hazards where events analysis indicate that DOE needs to enhance

its standards and capabilities to support safety evaluations. In addition, the Defense Nuclear Facilities Safety Board (DNFSB) has registered concerns in several of these areas.

Natural hazards technical areas that are under consideration for the formation of DOE Topical Committees (TCs) include: lightning; floods (hydrology); wind and tornadoes; general (ice, snow, volcanoes); and seismic.

The formation of relevant topical committees under the DOE Technical Standards Program (TSP) is an approach that has worked successfully in other technical areas. DOE TCs create the opportunity for DOE and DOE contractor subject matter experts in specific technical areas to share ideas with like-

minded scientists and engineers across the Department in a time of scarce resources. TCs also interact with any of the other existing topical committees (currently 25) for cross-fertilization of ideas. Under their affiliation with the TSP, these TCs will be recognized across the DOE complex as the focus of expertise in their specialized technical areas. They also function as the DOE interface with U.S. and international Standards Development Organizations (SDOs), other Federal agencies, and industry, and serve to provide comment on, or even coordinate, DOE technical standards development efforts for both internal and voluntary consensus standards.

A topical committee is transparent to the objectives of the internal organizations to which members belong. While management interaction and sanction (i.e., DOE mission and function related) is required for participation, DOE TCs provide an opportunity for worker-level exchange of technical expertise that bridges organizational lines and provides a technical forum that survives reorganizations and "rightsizings."

(Continued on Page 2)



REVCOM

and the TSP

A Note From the Manager . . .



Rick Serbu TSP Manager

Within the next year, the Technical Standards Program Office (TSPO) is planning to adopt REVCOM [the Department of Energy (DOE) Directives System Comment and Review System] for use with the DOE Technical Standards Program (TSP). The decision to use REVCOM to replace the time-honored TSP manual comment resolution system evolved from analyses con-

ducted by the DOE Technical Standards Managers' Committee (TSMC), who unanimously and strongly sup-

ported the transition. We also found strong support from the DOE Standards Executive, Dick Black; the Directives System Manager, Sue Hargrove; and the acting Chief Information Officer, Howard Landon.

REVCOM offers us a speedier and more complete comment and review process with improved distribution and documentation. REVCOM would be used by the TSP to develop internal DOE standards, review external standards, perform final reviews and

maintenance updates of DOE standards, and provide "alerts" to customers in their areas of interest. It provides more extensive and easier access to documents, comments, and comment resolution, while still providing for access limits and technical and management oversight by individual organizations and headquarters, site, and field level organizations. TSMs will be able to establish cadres of subject matter experts for electronic distribution for review efforts. Our many DOE Topical Committees (TCs) will be able to use REVCOM for standards development and other TC activities. The system proposed for the TSP would closely follow that used for the Directives System, taking into account that we use TSMs as distribution and

control agents for the TSP, that our primary documents are technical, and that our primary customers and users are subject matter experts. The TSP REVCOM would be modified to achieve consistency with our TSP Procedures (TSPPs), and our TSPPs would be somewhat modified to enhance compatibility with REVCOM's electronic processes.

The primary benefits of using REVCOM include: a more rapid and complete development and review cycle; improved documentation of comments and comment resolution; cost savings (based on decreased travel, fewer meetings, shorter development times, shorter comment resolution periods, and less manual information processing); and enhanced openness, balance-of-interest, due process, and transparency—the cornerstones of technical standards development. The effort will also

help establish consistencies between the TSP and Directives System, furthering our ongoing cooperation. Since there are several other Federal agencies now interested in using REVCOM (I've been "spreading the word" at Interagency Committee on Standards Policy meetings), it may eventually provide us with the bedrock for direct interagency coordination on standards development and position analyses.

Of course, implementation depends on senior level manager support with the budget and some up-front

"investment," but we'll save significant costs by "piggybacking" on the Directives System's REVCOM and taking advantage of their learning curve. The improvement in TSP services will be significant and result in overall cost savings and work efficiency. It is a necessary step into the information age that will enable us to provide more effective services and information to our diverse users. We look forward to better supporting all our DOE Federal and contractor organizations with REVCOM and would be pleased to hear your thoughts on the matter. As usual, you can contact me at Richard.Serbu@eh.doe.gov, or go through your organization's TSM!

— Rick Serbu



Technical Standards Program . . . (Continued from previous page)

DOE TCs are chartered by the TSP primarily to participate in technical standards development and review activities. Visibility is afforded by announcing the group on the TSP Home Page along with the current TSP topical committees. TSP newsletters, *The Standards Forum* and *Standards Actions*, also provide a platform for reporting notice of topical committee meetings and current activities. More general information on DOE TCs is available from the *Technical Standards Program Guide* (DOE G 252.1-1) and from one of our procedures, *Technical Standards Program Topical Committees* (DOE-TSPP-11). Both of these documents are available on the TSP Home Page at http://tis.eh.doe.gov/techstds/index.html.

Are you a **subject matter expert** in natural hazards who would like to provide leadership or participate in these select areas? If so, contact one of the individuals on the following list (or one of the DOE TSP representatives—M. Norman Schwartz, 301-903-2996, **Norm.Schwartz@eh.doe.gov**; and Richard Serbu, 301-903-2856, **Richard.Serbu@eh.doe.gov**).

Natural Hazards Technical Areas Under Consideration Lightning

Pat Tran, 301-903-5638, Pat.Tran@ eh.doe.gov; Richard Stark, 301-903-4407. Richard.Stark@ eh.doe.gov

Floods/Hydrology

Pat Finn, 301-903-9876, **Pat.Finn@eh.doe.gov**; Harish Chander, 301-903-6681, **Harish.Chander@eh.doe.gov**

Wind and Tornadoes

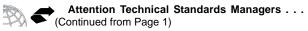
Gerald E. Meyers (Jerry), 301-901-3190, **Gerald.Meyers@eh.doe.gov**; Harish Chander, 301-903-6681, **Harish.Chander@eh.doe.gov**

General (ice, snow, volcanoes)

Pat Finn, 301-903-9876, **Pat.Finn@eh.doe.gov**; Harish Chander, 301-903-6681, **Harish.Chander@eh.doe.gov**

Seismic

Harish Chander, 301-903-6681, Harish.Chander@eh.doe.gov



where the documents can be accessed for review. Where these source documents can be transmitted electronically, send them to Marsha McGinnis at **mcginnismp@ornl.gov** (865-574-2506). This information is needed no later than **May 31, 2001**. Note that if these documents were provided to ORNL last year and no changes have been made, retransmittal of the documents is not required.

DOE-TSL-4

The TSPO needs updated information on the personnel in your organization that either participate in the development of voluntary standards or serve on management boards of voluntary standards bodies. All TSMs are requested to review: (a) the 1999 edition of DOE-TSL-4 (*Directory of DOE and Contractor Personnel Involved in Non-Government Standards Activities*) for individuals in your organization to contact for confirming their current participation (a PDF file of the 1999 edition of TSL-4 can be found at http://tis.eh.doe.gov/techstds/), and (b) your organization's input on new/revised participations in CY 2000. You should also consult your Web-based personnel directories to confirm if the participating individuals are still employed by your organization. In addition, all TSMs should issue a general request within your organization for information on new or modified participation activities.

New participations, revisions of information previously submitted, or terminations of membership should be documented using DOE F 1300.2, "Record of Non-Government Standards Activity." A copy of this form is available from (a) an attachment to DOE Order 252.1, (b) your copy of the Technical Standards Program Procedures (TSPPs), or (c) the TSP Web Site listed above. Please be sure to provide complete information on the form to ensure a person's participation is recorded. Note that only new, revised, or terminated participations need to be documented. All DOE F 1300.2 forms should be transmitted to Amy Bush, ORNL, P.O. Box 2009, Oak Ridge, Tennessee 37831-8065 (865-576-2395; Fax 865-574-0382). This information is needed no later than **May 31, 2001.**

TSPPs

As you know, the TSPPs were updated in August 2000. However, the TSPO is interested in receiving feedback on the usefulness of the procedures and any changes needed to make the technical standard development, coordination, approval, and maintenance processes more responsive to the needs of technical standard users and TSP stakeholders. Any TSPP changes that you would like to propose should be submitted to Rick Serbu, **Richard.Serbu@eh.doe.gov.** If a number of comments and/or proposed changes are received, a revision to the TSPPs will be prepared at the end of CY 2001.

Please note that as of the date of this article, DOE/EH funding reductions continue to preclude publication of updated versions of TSL-1 and TSL-4. However, the data provided will be used to prepare the FY 2001 DOE report to the National Institute of Standards and Technology on Federal participation in voluntary standards activities in accordance with OMB Circular A-119. If you have any questions on these activities, please contact Rick Serbu, **Richard.Serbu@eh.doe.gov**.

Welcome Aboard!

The Technical Standards Managers (TSMs) are the backbone of the DOE Technical Standards Program! These knowledgeable individuals serve as their organization's standards point of contact and contribute to the coordi-



nation of Department-wide TSP activities. A great deal of their work time is spent in assuring that standards activities take place in a manner that will promote safe, economical, and efficient operations locally and across the DOE complex.

With nearly 70 active and mobile people involved in TSM activities, it can be a daunting task just to keep up with the retirements and reassignments affecting the TSM roster. This "Welcome Aboard" feature is designed to introduce you to the new TSMs and help you keep abreast of the rapidly changing makeup of the Technical Standards Managers' Committee (TSMC).

The TSMC welcomes the following recently added members.

Toni Rutherford Fluor Fernald, Inc. P.O. Box 538704, MS5 Cincinnati, Ohio 45253-8704 Phone: 513-648-6126

Fax: 513-648-6382

Toni.Rutherford@fernald.gov

Robert (Bob) Waxman U.S. Department of Energy Civilian Nuclear Programs, GC-52 1000 Independence Avenue, Room 6A-167 Forrestal Washington, D.C. 20585

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Robert.Waxman@hq.doe.gov



Editor Marsha McGinnis, mcginnismp@ornl.gov

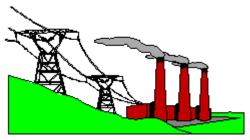
Distribution: The Standards Forum is an electronic newsletter available from the TSP Web Site (http://tis.eh.doe.gov/techstds/). To update your mailing and e-mail addresses, please contact Amy Bush, ORNL, 865-576-2395, Fax 865-574-0382, bushar@ornl.gov.

Comments: If you have any questions or comments please contact Rick Serbu, EH-53, 301-903-2856, Richard.Serbu @eh.doe.gov. If you have any questions or comments on DOE standards projects, please call Don Williams, ORNL, 865-574-8710, williamsdljr@ornl.gov.

Publication: ORNL and DOE's ES&H Technical Information Services posts *The Standards Forum* quarterly for the DOE Technical Standards Program at http://tis.eh.doe.gov/techstds/.

Standards Development to be Pursued by New Center for Distributed Power

The Department of Energy's National Renewable Energy Laboratory (NREL) has announced the establishment of a Center for Distributed Power. The Center will conduct research and provide information needed to efficiently develop additional power supplies from a dispersed network of relatively small generating facilities. Small natural gas turbines, as well as renewable energy



sources such as sun, wind, and biomass, are examples of technologies that are considered to be well suited for distributed power. Producing small systems and interconnections with electricity grids that will provide power safely, reliably, and economically will present technological challenges.

Three organizational units make up NREL's Center for Distributed Power: 1) Distributed Power Systems Integration, 2) Resource and Environmental Evaluation, and 3) Hydrogen and Natural Gas Systems.

To support the Distributed Power Systems Integration Unit, NREL is planning a new facility to test methods and equipment for interconnecting distributed power systems. According to NREL, one of the primary roles of the testing facility will be to help **develop universal standards** to assure the performance and safety of distributed power equipment. This effort is considered critical because different electrical generation technologies produce power with widely varying characteristics. The data produced by the center will be used by standards-writing bodies to develop consensus test standards and by independent organizations to formally certify distributed power equipment.

According to NREL, the Resource and Environmental Evaluation Unit will develop methods for analyzing environmental impacts and site requirements for locating distributed power systems. The Hydrogen and Natural Gas Systems Unit will combine existing NREL research into what the lab calls "two of the most promising areas of distributed power generation: fuel cells and microturbines."

You can find out more about NREL's new Center for Distributed Power at http://www.nrel.gov/. Also, DOE's Distributed Power Program held a program review and planning meeting on January 15-19, 2001, in Washington, D.C., at which key issues surrounding distributed power were examined and priorities for future work were identified, including the development of interconnection standards for distributed power. To learn more, visit DOE's Distributed Power Program Web site at http://www.eren.doe.gov/distributedpower/.

In a related matter, the Institute of Electrical and Electronics Engineers (IEEE) P1547 Working Group on Distributed Resources and Electric Power Systems Interconnection is developing IEEE P1547, *Draft Standard for Distributed Power Resources Interconnected with Electric Power Systems*. The purpose of this standard is to provide a uniform standard for interconnection of distributed resources with electric power systems. This standard is intended to provide requirements rel-

evant to the performance, operation, testing, safety considerations, and maintenance of the interconnection. The sponsor of P1547 is IEEE Standards Coordinating Committee 21 (IEEE SCC21) on Fuel Cells, Photovoltaics, Dispersed Generation, and Energy Storage, which is chaired by Richard DeBlasio of NREL. If you are interested in finding out more about the IEEE SCC21 P1547, visit the committee's Web site at

http://grouper.ieee.org/groups/scc21/1547/index.html.

Year 2000 Revisions of ISO 9000 Series Released

The International Organization for Standardization (ISO) officially released the year 2000 revisions of the ISO 9000 series of quality management standards on December 15, 2000.

The ISO 9000 standards have become an international reference for quality requirements in business-to-business dealings and form the basis of more than 350,000 certified quality management systems within private and public sector organizations in at least 150 countries. Current ISO 9000 certificate holders will have up to three years to make the transition to the new version of ISO 9001.

ISO reviews its standards periodically in the light of technological and business developments. The 2000 revisions of the ISO 9000 series represent the most thorough overhaul of these standards since they were first published in 1987. The new versions take into account developments in the field of quality and the considerable experience that now exists in implementing ISO 9000.

The following three standards make up the newly issued set of revisions: ISO 9000, Quality management systems – Fundamentals and vocabulary; ISO 9001, Quality management systems – Requirements; and ISO 9004, Quality management systems – Guidance for performance improvement.

A fourth document, ISO 19011, which will be a joint quality management system and environmental management system auditing standard, is expected to be published in 2002.

ISO technical committee ISO/TC 176, Quality Management and Quality Assurance, is responsible for developing and maintaining the ISO 9000 standards. To help ensure a smooth transition to the ISO 9000:2000 series, ISO/TC 176 has developed a set of explanatory and guidance documents. This material, which is free of charge, is available on the Web sites of ISO (http://www.iso.ch/) and ISO/TC 176's Subcommittee 2 (http://www.bsi.org.uk/iso-tc176-sc2). The *Transition Planning Guide for ISO 9001-2000* is also available from the American National Standards Institute (ANSI).

The revised standards can be purchased and downloaded from the ANSI Online Electronic Standards Store at http://webstore.ansi.org.



Standards Actions



Technical Standards Program Document Status

Activity Summary

02/27/2001

In Conversion - 4

In Preparation - 35

Out for Comment - 18

Published this Month - 0



CY 2001 5-year Reviews

In Revision - 2

Reaffirmation in Progress – 19

Supersedures - 6

Cancellations Pending - 9

Cancellations in Progress – 20

No Current Action - 14

DOE Technical Standards Proposed for Reaffirmation

The following DOE Technical Standards have been proposed for reaffirmation:

- DOE-HDBK-1074-95, Alternative Systematic Approaches to Training, January 1995.
- DOE-HDBK-1086-95, Table-Top Training Program Design, April 1995.
- DOE-STD-1031-92, *Guide to Good Practices for Communications*, including Change Notice 1, December 1998.
- DOE-STD-1032-92, Guide to Good Practices for the Operations Organization and Administration, including Change Notice 1, December 1998.
- DOE-STD-1033-92, Guide to Good Practices for Operations and Administration Updates Through Required Reading, including Change Notice 1, December 1998.
- DOE-STD-1034-93, *Guide to Good Practices for Timely Orders to Operators*, including Change Notice 1, December 1998.
- DOE-STD-1035-93, *Guide to Good Practices for Logkeeping*, including Change Notice 1, December 1998.
- DOE-STD-1036-93, *Guide to Good Practices for Independent Verification*, including Change Notice 1, December 1998.
- DOE-STD-1037-93, *Guide to Good Practices for Operations Aspects of Unique Processes*, including Change Notice 1, December 1998.
- DOE-STD-1038-93, *Guide to Good Practices for Operations Turnover*, including Change Notice 1, December 1998.
- DOE-STD-1039-93, *Guide to Good Practices for Control of Equipment and System Status*, including Change Notice 1, December 1998.
- DOE-STD-1040-93, *Guide to Good Practices for Control of On-Shift Training*, including Change Notice 1, December 1998.
- DOE-STD-1041-93, Guide to Good Practices for Shift Routines and Operating Practices, including Change Notice 1, December 1998.
- DOE-STD-1042-93, Guide to Good Practices for Control Area Activities, including Change Notice 1, December 1998.
- DOE-STD-1043-93, Guide to Good Practices for Operator Aid Postings, including Change Notice 1, December 1998.
- DOE-STD-1044-93, Guide to Good Practices for Equipment and Piping Labeling, including Change Notice 1, December 1998.
- DOE-STD-1045-93, Guide to Good Practices for Notifications and Investigation of Abnormal Events, including Change Notice 1, December 1998.

These documents are currently being reevaluated under the five-year "Periodic Document Review" (Sunset Review) provision of the Technical Standards Program Procedures (DOE-TSPP-9, Section 2.4 and Section 4.2.2).





Standards Actions (Continued from previous page)

DOE-HDBK-1074-95 and DOE-HDBK-1086-95 contain general information about training methods and are believed to be technically valid without changes. If you have any questions about this action, contact John Yoder, 301-903-5650, **John.Yoder@eh.doe.gov**. Comments are due March 26, 2001.

The 15 conduct of operations standards, DOE-STD-1031-92 through DOE-STD-1045-93, are believed to be technically valid without changes. If you have any questions about this action, contact M. Norman Schwartz, 301-903-2996, Norm.Schwartz@eh.doe.gov. Comments are due April 6, 2001.

DOE Technical Standards Proposed for Cancellation

The following DOE Technical Standards have been proposed for cancellation:

- DOE-SPEC-3018-96, Flooded-Type Lead-Acid Storage Batteries, August 1996.
- DOE-SPEC-3019-96, Valve-Regulated Type Lead-Acid Storage Batteries, August 1996.

These documents were listed in the five-year "sunset" review for FY 2001. The Preparing Activity, DP-45, has determined that these documents are no longer needed because they are not used by the field as was originally anticipated. If you have any questions about this action, contact John Fredlund, 301-903-3059, work@fredlund.net. Comments are due April 12, 2001.

Non-Government Standards American National Standards Institute

The American National Standards Institute (ANSI) publishes coordination activities of non-Government standards (NGS) biweekly in *ANSI Standards Action*. Recent electronic copies (no hardcopies are produced) are available on the ANSI Web site at http://web.ansi.org/rooms/room_14/. Electronic back copies are available to ANSI members only. For information on site membership, ask your local ANSI contact. For information on individual or group ANSI membership, call Susan Bose at 212-642-4948, e-mail sbose@ansi.org.

Hardcopy versions of published non-Government standards listed in this section may be obtained from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado, 80112, 800-854-7179, Fax 303-397-2740, **global@ihs.com**, http://global.ihs.com. Electronic delivery of selected documents is available through ANSI at http://webstore.ansi.org. Copies of the listed draft standards and the procedure for commenting on the same may be obtained by contacting the standards developing organization.

The following listings are extracted from *ANSI Standards Action* and are representative of NGS development activities that may be relevant to DOE operations. Refer to *ANSI Standards*

Action for a more extensive listing of changes and new publications, standards developing organizations, and additional information about submitting comments. Additional information on ANSI activities and available non-Government standards can be found on the ANSI Web site, http://www.ansi.org, or through the National Standards System Network, http://www.nssn.org.

The following American National Standards are currently in coordination (comment due dates follow each entry):

- ANSI C2-2002, National Electrical Safety Code, 2002 Edition (revision of ANSI C2-1997) April 24, 2001.
- ANSI Z490.1, Accepted Practices for Safety, Health, and Environmental Training (new standard) April 24, 2001.
- API 620, 10th Edition, Design and Construction of Large, Welded, Low-Pressure Storage Tanks (revision of ANSI/API 620-1992) – April 10, 2001.
- ASME B31.1, Power Piping (revision of ANSI/ASME B31.1-1998) – April 10, 2001.
- ASME B89.1.10M -1987 (R1995), Dial Indicators (for Linear Measurements) (revision of ANSI/ASME B89.1.10M -1987 (R1995)) – April 10, 2001.
- ASME CSD-1-1998, Controls and Safety Devices for Automatically Fired Boilers (supplement to ANSI/ASME CSD-1-1998, ANSI/ASME CSD-1a-1999, and BSR/ASME CSD-16-2000) April 24, 2001.
- ASME MFC-18M, Measurement of Fluid Flow In Pipes Using Variable Area Meters (new standard) April 24, 2001.
- ASQ Z1.11-2000, Education and Training Institutions Guidance (revision of ANSI/ASQC Z1.11-1996) April 24, 2001.
- ESD S4.1, Test Method for Protection of Electrostatic Discharge Susceptible Items: Work Surfaces Resistance Measurements (revision and redesignation of ANSI/EOS/ESD S4.1-1990) April 10, 2001.
- IEEE 628, Raceway Systems for Class 1E Circuits for Nuclear Power Generating Stations, Criteria for the Design, Installation, and Qualification (revision of ANSI/IEEE 628-1987 (R1993)) – April 10, 2001.
- IESNA RP7, Recommended Practice for Lighting Industrial Facilities (revision and redesignation of ANSI/IES RP7-1990)

 April 10, 2001.
- UL 8-2000, Standard for Safety for Foam Fire Extinguishers (revision of ANSI/UL 8-2000) April 10, 2001.
- UL 10C, Standard for Safety for Positive Pressure Fire Tests of Door Assemblies (new standard) March 12, 2001.
- UL 94, Standard for Safety for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances (revision of ANSI/UL 94-2000) – March 12, 2001.

Standards Actions (Continued from previous page)

- UL 154, Standard for Safety for Carbon Dioxide Fire Extinguishers (revision of ANSI/UL 154-2000) April 10, 2001.
- UL 299-2000, Standard for Safety for Automatic Sprinklers for Fire Protection Service (revision of ANSI/UL 299-2000) – April 10, 2001.
- UL 711-1999, Standard for Safety for Rating and Testing of Fire Extinguishers (revision of ANSI/UL 711-1999) – April 10, 2001.
- UL 746A, Standard for Safety for Polymeric Materials Short-Term Property Evaluations (revision of ANSI/UL 746A-2000)
 March 26, 2001.
- UL 935, Standard for Safety for Fluorescent-Lamp Ballasts (revision of ANSI/UL 935-1992) – March 12, 2001.

The following American National Standards have been approved for publication: (Publication is to take place within six months following the date shown. Publication status and ordering information may be obtained from ANSI's Customer Service at 212-642-4900.)

- ANSI N43.10-2001, Safe Design and Use of Panoramic, Wet Source Storage Gamma Irradiators (Category IV) and Dry Source Storage Gamma Irradiators (Category II) (new standard) – January 10, 2001.
- ANSI/API 576-2000, Inspection of Pressure-Relieving Devices (new standard) – January 8, 2001.
- ANSI/ASME A90.1b-2001, Safety Standard for Belt Man-lifts (supplement to ANSI/ASME A90.1-1997) – January 23, 2001.
- ANSI/IEEE 379-2000, Standard Application of the Single-Failure Criterion to Nuclear Power Generating Station Safety Systems (revision of ANSI/IEEE 379-1994) – January 8, 2001.
- ANSI/IEEE 475-2000, Standard Measurement Procedure for Field Disturbance Sensors, 300 MHz to 40 GHz (revision of ANSI/IEEE 475-1983 (R1994)) – January 22, 2001.
- ANSI/ISO/ASQ Q10015-1999, Quality Management Guidelines for Training (new standard) – January 25, 2001.
- ANSI/NB 23-2000 Addendum, National Board Inspection Code (revision of ANSI/NB 23-1998 (1999 Addendum)) – January 8, 2001.
- ANSI/UL 508-2001, Standard for Safety for Industrial Control Equipment (revision of ANSI/UL 508-2000) – January 5, 2001.
- ASTM D1890-96, Test Method for Beta Particle Radioactivity of Water (new standard).
- ASTM D1943-96, Test Method for Alpha Particle Radioactivity of Water (new standard).
- ASTM D1976-96, Test Method for Elements in Water by Inductively-Coupled Argon Plasma Atomic Emission Spectroscopy (new standard).

- ASTM D2187-94 (1998), Test Methods for Physical and Chemical Properties of Particulate Ion-Exchange Resins (new standard).
- ASTM D2460-97, Test Method for Alpha-Particle-Emitting Isotopes of Radium in Water (new standard).
- ASTM D2687-95, Practices for Sampling Particulate Ion-Exchange Materials (new standard).
- ASTM D2907-97, Test Methods for Micro-quantities of Uranium in Water by Fluorometry (new standard).
- ASTM D2908-91 (1995), Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography (new standard).
- ASTM D3084-96, Practice for Alpha-Particle Spectrometry of Water (new standard).
- ASTM D3223-95, Test Method for Total Mercury in Water (new standard).
- ASTM D3375-95, Test Method for Column Capacity of Particulate Mixed Bed Ion Exchange Materials (new standard).
- ASTM D3382, Test Methods for Measurement of Energy and Integrated Charge Transfer Due to Partial Discharges (Corona) Using Bridge Techniques (reaffirmation of ANSI/ASTM D3382-95).
- ASTM D3454-97, Test Method for Radium-226 in Water (new standard).
- ASTM D3534-85 (1995), Test Method for Polychlorinated Biphenyls (PCBs) in Water (new standard).
- ASTM D3645-97, Test Methods for Beryllium in Water (new standard).
- ASTM D3648-95, Practices for the Measurement of Radioactivity (new standard).
- ASTM D3865-97, Test Method for Plutonium in Water (new standard).
- ASTM D3920-92 (1996), Test Method for Strontium in Water (new standard).
- ASTM D3972-97, Test Method for Isotopic Uranium in Water by Radiochemistry (new standard).
- ASTM D5568, Test Method for Measuring Relative Complex Permittivity and Relative Magnetic Permeability of Solid Materials at Microwave Frequencies (revision of ANSI/ASTM D5568-95).

<u>The following international standards are currently in coordination</u> (comment due dates follow each entry):

• ISO/DIS 11222, Air quality—Determination of the uncertainty of the time average of air quality measurements – May 16, 2001.



Standards Actions (Continued from previous page)

- ISO/DIS 11990, Optics and optical instruments Lasers and laser-related equipment – Determination of laser resistance of tracheal tube shafts – April 4, 2001.
- ISO/DIS 17973, Surface chemical analysis—Medium-resolution Auger electron spectrometers—Calibration of energy scales for elemental analysis – May 16, 2001.
- ISO/DIS 17974, Surface chemical analysis—High-resolution Auger electron spectrometers—Calibration of energy scales for elemental and chemical-state analysis – May 16, 2001.
- prEN ISO 17250, Safety footwear with resistance to fire fighting hazards (ISO/DIS 17250:2000) – April 14, 2001.
- prEN ISO 20344, Test methods for safety, protective, occupational and specific job related footwear for professional use (ISO/DIS 20344:2000) – April 14, 2001.
- prEN ISO 20345, Safety footwear for professional use Specifications (ISO/DIS 20345:2000) April 14, 2001.
- prEN ISO 20346, Protective footwear for professional use Specifications (ISO/DIS 20346:2000) – April 14, 2001.
- prEN ISO 20347, Occupational footwear for professional use
 Specifications (ISO/DIS 20347:2000) April 14, 2001.

The following newly published international standards are available:

- IEC 60034-5 Ed. 4.0 b: 2000, Rotating electrical machines Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) – Classification.
- IEC 60695-8-1 Ed. 1.0 b: 2001, Fire hazard testing—Part 8-1: Heat release—General guidance.
- IEC 60880-2 Ed. 1.0 b: 2000, Software for computers important to safety for nuclear power plants—Part 2: Software aspects of defence against common cause failures, use of software tools and of predeveloped software.
- IEC 61976 Ed. 1.0 b: 2000, Nuclear instrumentation—Spectrometry—Characterization of the spectrum background in HPGe gamma-ray spectrometry.
- ISO 5178:2001, Destructive tests on welds in metallic materials—Longitudinal tensile test on weld metal in fusion-welded joints.
- ISO 8529-1:2001, Reference neutron radiations—Part 1: Characteristics and methods of production.

American National Standards Projects Initiated

The following is a list of proposed new American National Standards or revisions to existing American National Standards submitted to ANSI by accredited standards developers. DOE employees or contractors interested in participating in these activities should contact the appropriate standards developing organization. DOE-TSL-4 lists the DOE representatives on NGS

committees. If no DOE representative is listed, contact the TSPO for information on participating in NGS activities.

Robotic Industries Association

Office: P.O. Box 3724

900 Victor's Way, Suite 140 Ann Harbor, MI 48108-5210

Fax: 734-994-3338

Contact: Jeff Fryman, jfryman@robotics.org

RIAT15.1, Safety Requirements for Introduction of New Technology, Intelligent Assist Devices (new standard).

American Society for Testing and Materials

Standards activities of the American Society for Testing and Materials (ASTM) are published monthly in ASTM Standardization News. Orders for subscriptions or single copies of ASTM Standardization News may be submitted to ASTM, Subscription Dept.-SN, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959. For information regarding ASTM membership, contact the Membership Services Department at 610-832-9691 (Fax 610-832-9667). ASTM publications may be ordered from the ASTM Customer Services Department at 610-832-9585 (Fax 610-832-9555). Comments on listed draft standards may be submitted by contacting the ASTM Standards Coordination Department at the above address. Questions may be addressed to the Technical Committee Operations Division at 610-832-9672 (Fax 610-832-9666). Additional information on ASTM activities is available on the ASTM Web site (http://www.astm.org). The following listings are extracted from ASTM Standardization News and are representative of NGS development activities that may be relevant to DOE operations.

The following ASTM standards are currently in coordination (the due date for all items is March 10, 2001):

- C 633-79 (1999), Test Method for Adhesion or Cohesive Strength of Flame-Sprayed Coatings (revised standard).
- C 1045-97, Practice for Calculating Thermal Transmission Properties Under Steady-State Conditions (revised standard).
- D 1356-00a, Terminology Relating to Sampling and Analysis of Atmospheres (revised standard).
- D 1531-95, Test Methods for Relative Permittivity (Dielectric Constant) and Dissipation Factor by Fluid Displacement Procedures (revised standard).
- D 2865-95, Practice for Calibration of Standards and Equipment for Electrical Insulating Materials Testing (revised standard).
- D 3878-00, Terminology for Composite Materials (revised standard).
- D 4000-00a, Classification System for Specifying Plastic Materials (revised standard).

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- Standards Actions (Continued from previous page)
- E 698-99, Test Method for Arrhenius Kinetic Constants for Thermally Unstable Materials (revised standard).
- E 943-00a, Terminology Relating to Biological Effects and Environment Fate (revised standard).
- E 1525-94a, Guide for Designing Biological Tests with Sediments (revised standard).
- F 1506-00, Performance Specification for Flame Resistant Textile Materials for Wearing Apparel for Use by Electrical Workers Exposed to Momentary Electric Arc and Related Thermal Hazards (revised standard).
- New Standard, Practice for Full-Scale Chamber Determination of Volatile Organic Emissions from Indoors Materials/ Products.

The following newly published standards are available from ASTM:

- A 348/A 348M-00, Test Method for Alternating Current Magnetic Properties of Materials Using the Wattmeter-Ammeter-Voltmeter Method, 100 to 10 000 Hz and 25-cm Epstein Frame (revised standard).
- A 894-00, Test Method for Saturation Magnetization or Induction of Nonmetallic Magnetic Materials (revised standard).
- B 193-00, Test Method for Resistivity of Electrical Conductor Materials (revised standard).
- D 1356-00a, Terminology Relating to Sampling and Analysis of Atmospheres (revised standard).
- D 3154-00, Test Method for Average Velocity in a Duct Pitot Tube Method (revised standard).
- D 4430-00, Practice for Determining the Operational Comparability of Meteorological Measurements, Volume 11.03, 2001 (revised standard).
- D 4913-00, Practice for Determining Concentration of Hydrogen Sulfide by Direct Reading, Length of Stain, Visual Chemical Detectors (revised standard).
- D 5527-00, Practices for Measuring Surface Wind and Temperature by Acoustic Means (revised standard).
- D 6582-00, Guide for Ranked Set Sampling: Efficient Estimation of a Mean Concentration in Environmental Sampling (new standard).
- E 50-00 (Includes change to title), *Practices for Apparatus, Reagents, and Safety Considerations for Chemical Analysis of Metals, Ores, and Related Materials* (revised standard).
- E 202-00, Test Methods for Analysis of Ethylene Glycols and Propylene Glycols (revised standard).
- E 222-00, Test Methods for Hydroxyl Groups Using Acetic Anhydride Acetylation (revised standard).
- E 411-00, Test Method for Trace Quantities of Carbonyl Compounds with 2,4-Dinitrophenylhydrazine (revised standard).

- E 428-00 (Includes change to title), *Practice for Fabrication* and Control of Steel Reference Blocks Used in Ultrasonic Examination (revised standard).
- E 475-00, Test Method for Assay of Di-tert-Butyl Peroxide Using Gas Chromatography (revised standard).
- E 974-00, Guide for Specifying Thermal Performance of Geothermal Power Systems (revised standard).
- E 1419-00, Test Method for Examination of Seamless, Gas-Filled, Pressure Vessels Using Acoustic Emission (revised standard).
- E 1457-00, Test Method for Measurement of Creep Crack Growth Rates in Metals (revised standard).
- E 1462-00, Test Methods for Insulation Integrity and Ground Path Continuity of Photovoltaic Modules (revised standard).
- E 1564-00, Guide for Design and Maintenance of Low-Temperature Storage Facilities for Maintaining Cryopreserved Biological Materials (revised standard).
- E 1565-00, Guide for Inventory Control and Handling of Biological Material Maintained at Low Temperatures (revised standard).
- E 1566-00, Guide for Handling Hazardous Biological Materials in Liquid Nitrogen (revised standard).
- E 1584-00, *Test Method for Assay of Nitric Acid* (revised standard).
- E 2107-00, Practice for Environmental Regulatory Compliance Audits (new standard).

Comments, Questions, and Addresses

Comments: If you have any questions or comments, please contact Rick Serbu, EH-53, Manager, DOE Technical Standards Program Office (TSPO), 301-903-2856, Fax 301-903-6172, **Richard.Serbu@eh.doe.gov**.

Addresses: Standards Actions and The Standards Forum are electronic newsletters available on the TSP Web Site (http://tis.eh.doe.gov/techstds/). To update your mailing and e-mail addresses, please contact Amy Bush, ORNL, 865-576-2395, Fax 865-574-0382, bushar@ornl.gov.

Technical Standards Activities: The TSPO would like to be kept informed of the status of technical standards that are being prepared or coordinated for DOE. Please provide this information to the TSPO at 865-576-2395, **bushar@ornl.gov**.

NIST Invites Standards Community to Centennial Standards Symposium



In celebration of its Centennial Anniversary, the National Institute of Standards and Technology (NIST) is hosting a Centennial Standards Symposium titled *Standards in the Global Economy: Past, Present, Future* to be held March 7, 2001, in the Red Auditorium of its Administration Building in Gaithersburg, Maryland. Focusing on a variety of economic sectors, experts from industry, government, international standards organizations, and academia will address the evolving roles of standards and the hundreds of organizations that develop them. The Symposium's final session will focus on the National Standards Strategy, developed and adopted by ANSI in August 2000. To register online, visit the NIST Web site at http://www.nist.gov/conferences.



OSHA eCAT on Construction

The Occupational Safety & Health Administration (OSHA) has developed elec-

tronic Compliance Assistance Tools

(eCATs) that provide guidance information for the development of a comprehensive safety and health program. OSHA has recently established an eCAT Web site to help identify and control the hazards that commonly cause the most serious construction injuries. The safety hazards are grouped under four headings: electrical incidents, falls, struck-by, and

trenching and excavation. You can view the Construction eCAT Web site at http://www.osha-slc.gov/SLTC/construction_ecat/.

ASQ and EOQ Form Partnership Agreement

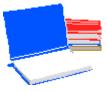


The American Society for Quality (ASQ) and the European Organization for Quality (EQQ) have formed a

tion for Quality (EOQ) have formed a partnership agreement to enhance and improve performance excellence worldwide. The agreement between ASQ and EOQ includes creating an alliance on Six Sigma, developing a communication action plan that will include offering one-day "networking sessions" in Europe, and developing an EOQ and ASQ action plan for the creation of a research access and dissemination program. The first networking session will take place between March and May 2001. For more information, contact Sylvie Hendrick at sylviehendrick@compuserve.com.

New Standards Reference Book Available

Standardization Essentials, Principles and Practice is a new reference book that surveys the discipline of standards and stan-



dardization, defining common terms, clarifying descriptions, describing how standards could be used to restrain trade, and explaining how international trade is stimulated by the due process provisions of standards writing organizations. The authors are Steven M. Spivak of the University of Maryland and F. Cecil Brenner, former NIST/NHTSA tire research scientist. Marcel Dekker, Inc. is the publisher. For more information see http://www.dekker.com/e/p.pl/8918-0?frame=main.

World Standards Day Papers Available Online



The World of Standards

The 2000 World Standards Day papers can be viewed online at the Standards Engineering Society (SES) Library's Web site, http://www.sesstandards.org/library.html. The first place paper is Microsoft Anti-Trust Litigation—The Case

for Standards, by Ken Krechmer and Elaine Baskin of the International Center for Standards Research at the University of Colorado at Boulder. Stephen Oksala, Director of Standards Management at Unisys, authored the second place paper, The Changing Standards World: Government Did It, Even Though They Didn't Mean To. The third place paper is Adoption of Uniform Standards in Testing Plastics for Global Competitiveness. by Dr. Ranganath K. Shastri,

NEWS BRIEFS

a Development Leader with Dow Chemical Company.

IAEA Releases New Safety Guide

The International Atomic Energy Agency (IAEA) has released a new safety guide, Operational Limits and Conditions and Operating Procedures for Nuclear Power Plants, Safety Standards Series No. NS-G-2.2. This safety guide provides guidance on the development, content, and use of operational limits and conditions (limits on plant operating parameters) and operating procedures that affect them. It recommends how to meet the requirements established in Safety Standards Series No. NS-R-2, Safety of Nuclear Power Plants: Operation (2000), prescribing the responsibilities of the operating organization in setting, modifying and documenting operational limits and conditions and ensuring compliance with them. It supersedes Safety Series No. 50-SG-O3, Operational Limits and Conditions for Nuclear Power Plants (1979). Complete details can be found at: http://www.iaea.org/worldatom/Books/ NewReleases/book4new.shtml.

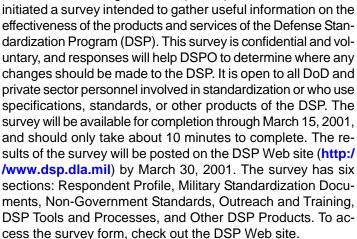




News Briefs (Continued from previous page)

Defense Standardization Program Request Input for Survey

The Department of Defense (DoD) – Defense Standardization Program Office (DSPO) has



ASTM Seeks Expertise to Develop Standard Guide for Measuring Equipment Used in Remotely Operated Facilities

A task group of the Remote Systems Subcommittee under the American Society for Testing and Materials' (ASTM) Committee C26 on Nuclear Fuel Cycle, who have proposed the development of a standard guide of options or instructions, is seeking information on the design, modification, and utilization of measuring equipment used in remotely operated nuclear facilities. Expertise is being sought from staff members of laboratories and processing facilities in the fields of medical isotope research, radiopharmaceutical production, nuclear waste treatment, nuclear waste compliance/analysis, and nuclear fuel examination/development. Members of the ASTM Nuclear Processing Subcommittee and other equipment stakeholders are invited to contact the task group chair: Bill Mangan, Lead Mechanical Engineer, BNFL, Inc., Idaho Falls, Idaho. Committee C26 meets June 24–28, 2001, in Norfolk, Virginia. For meeting or membership details, contact Staff Manager Jeffrey Adkins, ASTM, 610-832-9738.

ASME To Offer Online Access to Codes and Standards

The American Society of Mechanical Engineers (ASME) develops, maintains, and distributes internationally recognized industrial and manufacturing codes and standards. ASME has launched an initiative that will enable many of ASME's codes and standards to be purchased and securely downloaded directly to a user's personal computer. ASME has signed an agreement with Reciprocal, Inc., to create the new online publishing resource outlet, which is expected to be available to users via ASME's Web site (http://www.asme.org) in the first

quarter of this year. Electronic delivery of ASME codes and standards is expected to improve availability and efficiency for engineers and other users.

New AWS Standard for the Mechanical Testing of Welds

The American Welding Society (AWS) has completed the new edition of *Standard Methods for Mechanical Testing of Welds* (AWS B4.0M:2000). Developed under the



guidance of industry experts, this standard covers the common methods for the mechanical testing of welds, including bend, tension, fracture and other tests. *Standard Methods for Mechanical Testing of Welds* contains detailed figures to assist users in accurately testing welds. For each testing method, information is provided on other applicable standards, such as ANSI and ASTM, testing requirements and sample preparation, as well as all the necessary test reporting requirements. For more information, see the AWS Web site at http://www.aws.org.

API New API Petroleum Measurement Standard in Development

The American Petroleum Institute's (API) Committee on Petroleum Measurement (COPM) has begun preliminary work to define a new API recommended standard testing protocol for Differential Pressure Flow Measurement Devices. The new standard would be for use in petroleum product custody transfer applications. API's Committee for Gas Fluid Measurement, a subcommittee of COPM, is undertaking the standard development process. The Committee for Gas Fluid Measurement will invite interested party participation in the development of the draft standard once the proposed scope of work and project definition receive needed API committee approvals. The scope is expected to define flow testing of differential pressure flow measurement devices to ensure that the purchaser of any differential pressure flow meter will know what the meter is capable of achieving if tested according to the standard. The standard will cover any differential pressure flow device. More information about this program can be found at http:// www.api.org/release.cgi?id=N002383.



Upcoming Meetings and Conferences

March 6-8, 2001

<u>Title 10 CFR Part 850 Chronic Beryllium Disease Prevention Program Workshop</u>

DOE Forrestal Building – Washington, D.C.

Federal and contractor employees may participate in person or by video network.

More information can be found at: http://www.eh.doe.gov/be/.



March 7, 2001

NIST Centennial Standards Symposium—Standards in the Global Economy: Past, Present, Future

Red Auditorium, National Institute of Standards and Technology (NIST) Administration Building – Gaithersburg, Maryland

To register online, visit the NIST Web site at http://www.nist.gov/conferences.

March 19-22, 2001

Eighth Annual ISO 9000 Conference; ISO 14000 Conference

Reno Hilton - Reno, Nevada

More information is available at: http://www.asq.org/prod-ucts/conferences/iso9000_14000_conf. html.

March 20-22, 2001

<u>DOE Metrology Committee and DOE Accreditation Committee Meetings</u>

Y-12 National Security Complex – Oak Ridge, Tennessee

Topics for the meeting include accreditation efforts among DOE laboratories and promoting DOE laboratories in the national and international arenas.

For more information, contact Don Ragland, Sandia National Laboratories, at 505-845-9623.

April 2-3, 2001

2001 Annual General Meeting of the National Cooperation for Laboratory Accreditation (NACLA)

Hyatt Regency Hotel, Reagan National Airport – Arlington, Virginia

Theme: What NACLA Recognition Requires of Accreditation Bodies and How it Helps Industry, Government and Laboratories

For more information, call NACLA at 301-903-6472.

April 4-5, 2001

37th Annual Meeting of the National Council on Radiation Protection and Measurements

Crystal City Marriott – Arlington, Virginia More information can be found at: http://www.ncrp.com.

April 22-26, 2001

American Institute of Chemical Engineers (AIChE) 2001 Spring National

Meeting

George R. Brown Convention Center - Houston, Texas

Key focus: How to advance technologies more quickly and cost effectively to meet today's and tomorrow's challenges.

More information can be found at: http://www.aiche.org/spring/.

<u>Process for Preparation of Weapons-Grade Plutonium</u> for use as Mixed Oxide Fuel

This is a technical session of the AIChE 2001 Spring National Meeting. For more information, contact the program chair, Irwin Osborne-Lee, 409-857-2427, aichehouston@aol.com.

April 23-27, 2001

DOE/Contractor Fire Protection Workshop

Sheraton Augusta Hotel – Augusta, Georgia

The 2001 workshop will be held near the Savannah River Site. More information, including a detailed schedule and online registration form, will be available at http://tis.eh.doe.gov/fire/workshop2001/index.html.

April 29-May 3, 2001

Ninth International High-Level Radioactive Waste Management Conference

Alexis Park Hotel - Las Vegas, Nevada

Sponsored by ANS and others

Topics include the transportation, storage, and disposal issues for irradiated (spent) nuclear fuel and technical issues dealing with high-level waste.

For more information, contact Daniel Bullen, general chair, 515-294-6000, **dbullen@iaste.edu**. More information is available at http://www.ans.org/meetings/ihlrwm/.

May 13-17, 2001

NFPA World Fire Safety Congress & Exposition

Anaheim Convention Center – Anaheim, California

More than 80 education sessions are planned.

More information can be found at: http://www.nfpa.org/Central/wfes e.html.